DOCUMENT RESUME

ED 315 733 CS 009 937

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TITLE Improving Reading and Test Taking Performance of Minority and Majority Students.
PUB DATE 88
NOTE 13p.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Higher Education; Inferences; *Reading Comprehension; *Reading Improvement; Reading Research; Reading Skills; Reading Strategies; *Remedial Instruction; Remedial Programs; Remedial Reading; Scores; *Test Coaching; Testing; *Test Wiseness; Tutoring
IDENTIFIERS Pre Professional Skills Tests; Reciprocal Teaching; Southwest Texas State University

ABSTRACT

A study was conducted to increase students' passing rates on the reading subtest of the Pre-Professional Skills Test (PPST) by increasing their ability to answer reading items correctly, increasing their comprehension speed, and increasing their confidence in their test-taking abilities. Subjects were 27 students at Southwest Texas State University who responded to notices announcing tutoring sessions. Tutoring groups formed an augmented sample for which matched pairs were created, for a total of 54 subjects. All subjects were students who had failed th reading subtest by 1 to 10 points and had already used the available resources on campus to no avail. Students in the experimental group met in groups of no more than seven students for 1-hour sessions three times a week for nine weeks. During these sessions the students completed speed comprehension exercises, read passages and completed multiple-choice inference questions, discussed the passages and their choices, and discussed test-taking strategies. Of the tutored students, 63% passed the reading subtest at the next PPST testing session, and 37% failed the subtest. Of the matched students only 25% passed the reading subtest, and 74% failed. The type and quality of the remediation provided for the tutored students was different from the remediation efforts typically available for college-level students. The study used effective teaching practices with reciprocal teaching. The remediation emphasized instruction on identified weaknesses, and the small group instruction model also allowed for affective support of high teacher expectations and confidence based on students' graphed progress. (Twenty-five references are attached.) (MG)

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Improving Reading and Test Taking Performance of Minority and Majority Students

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CS009937

RUNNING HEAD: PPST

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Improving Reading and Test Taking Performance of Minority and Majority Students

A serious need exists today for more students to decide to be teachers, particularly minority students. Unfortunately, minority students who attend universities are more likely to pursue degrees in business, engineering, and social science, not education (ACT, 1986). Haberman (1988) argues that the shortage of minority teachers is only one result of undereducating minority children in substandard elementary and secondary schools, a situation that ultimately discourages potential college graduates and, thus, future teachers.

Additional conditions at the college level aggravate the shortage of both minority and majority teacher candidates. A significant factor is the increasing use of norm-referenced competency tests at some point prior to or during teacher education programs. By 1986, thirty-eight states required an entry test score for aspiring teachers. In 1988, thirty-two states had testing requirements for teacher certification (Spellman, 1988). Minorities score much lower on standardized tests than majority students. For example, in Florida a minimum score requirement on the SAT or ACT resulted in a reduction of 25% in the number of students entering teacher education programs, but a 90% reduction in minority applicants (Bray, 1984). In Texas minimum score requirement on the Pre-Professional Skills Test (PPST), even after additional retakes, resulted in 15% of all students failing the test (Eissenberg & Rudner, 1988). The effects on minority teacher education candidates, however, are quite severe. Sixty-six percent of Hispanics who attempt the test fail; 77% of blacks who attempt the test fail (Garcia, 1985).

The problem for students could be a lack of adequate basic skills, poor test-taking skills, and/or little confidence in their ability. If so, any effort to alleviate the problem

would need to a multi-prong approach. Students who lack the basic skills from poor educational preparation must be taught better reading, math, and composition skills. Students who are fearful of standardized tests need to be taught test taking skills. Certainly many learning assistance centers are charged with these tasks. Some evidence exists that minorities can be taught and coached to score better on norm-referenced tests. For example, the University of Arkansas at Pine Bluff increased minority scores on the NTE from 42% to 95% passing in four years (Antonelli, 1985).

Out of concern at Southwest Texas State University for students who were failing the reading subtest of the PPST, the School of Education encouraged efforts to increase students' passing rate on the reading subtest of the PPST. Although a similar concern existed for failures of each of the other two subtests, the focus of this study was limited to improving the passing rate on the reading subtest because the University provided explicit remedial instruction in the other two areas and because reading education expertise was available in the School of Education.

The purpose of this study, therefore, was to increase students' passing rate on the reading subtest of the PPST by increasing their ability to answer reading items correctly, increasing their comprehension speed, and increasing their confidence in their test taking abilities.

Research on reading comprehension stresses the strategic role of good readers (Brown, 1978; Palinscar & Brown, 1984; Paris, Cross, & Lipson, 1984; Paris & Jacobs, 1984). That is, readers who are aware of reading strategies and who know when they need to use those strategies are characterized by greater achievement. Instruction in reading strategies can improve achievement (Duffy, et al., 1986; Palinscar & Brown, 1984). Palinscar and Brown (1984) demonstrated

that poor readers can learn to monitor and improve their comprehension and, thus, increase their reading achievement. At the heart of their instruction was a reciprocal teaching process that taught students ways to reason and infer about ideas represented in the text in order to more fully comprehend and answer questions about the text.

Traditional teacher effectiveness studies have emphasized the importance of direct instruction, practices that increase task engagement, and high teacher expectations (Anderson, Evertson & Brophy, 1979; Rosenshine, 1979). Effective teachers, therefore, would be those who are able to help students learn what to do and when they need to do it. In addition, effective teachers would have high expectations for their students' ability to learn.

The predominant remediation model at the college level is characterized by diagnosis of student reading problems and student practice with self-instructional material (Devirian, 1975). It was our belief that a remediation effort for students who had failed the reading subtest of the PPST would be successful if instruction was consistent with reading research and teacher effectiveness studies. Specifically, instruction should be focused on teaching reading strategies and when to use them, be explicit, and be characterized by interactions between teacher and students. Moreover, we believed the instruction should try to improve students' use of time as they were tested. The more efficiently students used testing time, the more answers they would be able to attempt. Coupled with better reading strategies, attempting to answer more items would result in more correct answers. Finally we believed the instruction should be characterized by explicit avowals of our confidence in their ability to increase their PPST scores. We did not believe that students would

increase their pass rate for the PPST in a typical reading laboratory situation in which they practiced the same cognitive processes that had resulted in their previous failures on the PPST.

Methodology

Subjects

Since no college credit was provided for the tutorial efforts, students had to volunteer; therefore, subjects were 27 students who responded to notices during the summer and fall semesters announcing tutoring sessions for students (1) who had failed the reading subtest of the PPST and (2) who planned to retake that subtest at the next testing session. The tutoring groups formed an augmented sample for which matched pairs were created for a total of 54 subjects. The pairs were matched on ethnicity, sex, and previous PPST reading subtest score. All subjects had a GPA of over 2.3 with a mean GPA of 2.9. The pairs consisted of 48 females and 6 males. Thirty two were minority students, 28 Hispanics and 4 blacks. All subjects had failed the reading subtest by 1 to 10 points and had already used the available resources on campus (self-directed materials and large-group test-taking sessions) to no avail.

Materials

A self-assessment for college readers was created by the tutors to determine student perceptions of themselves as readers. The comprehension and speed portions of the Standford Disagnostic Reading Test, Blue Level, Form A (Karlsen, Madden & Gardner, 1977) were used to assess needs. Units from McCall-Crabbs Standard Tests in Reading, Book F (McCall & Schroeder, 1979) were used for practice in speed of comprehension. Reading passages and questions were used to teach

inferencing. These passages and questions were from Identifying Inferences (Wittenberg, 1987), Drawing Conclusions (Boning, 1982), A Reader's Handbook (Wassman & Paye, 1985), and Reading Skills Handbook (Wiener & Bazerman, 1982). The reading subtest of the sample PPST produced by the Educational Testing Service was also used. The Fry (1977) graph was used to assess the difficulty level of materials used. The grade level difficulty of the speed of comprehension materials ranged from grades 8-10, the inferencing materials from grades 7-11, and the practice test from grades 8-13.

Procedure

Students met in groups of no more than 7 students for one hour sessions three times a week for 9 weeks. During the sessions, students spent the first 10 minutes completing two speed of comprehension exercises, correcting their work and graphing the results to show the number of items completed and percentage correct. Students then spent 15 minutes reading passages and selecting answers to multiple-choice inference questions. Tutors then led 30 minute discussions of each passage and the students' answer choices after which the students corrected their work and graphed their progress. During these discussions, the tutors taught the participants to use the reading comprehension strategies that good readers use (Brown, 1978) and engaged the students in a form of reciprocal teaching (Palinscar & Brown, 1984). For example, the instructors would ask students which answer to each question they had selected and why they made that selection. Tutors would then elaborate on how text-based information, scheme-based information, and clues in the question could be used to make appropriate inferences and determine the best answer. Students also discussed what aspects of the text and their prior knowledge influenced each answer they selected. In other words, each question was discussed

until all students understood why the correct answer was the best answer. The tutors spent a few minutes at the beginning and end of each session discussing test-taking strategies and building confidence with comments about student strengths and their work in the current tutoring session.

During the last tutoring session prior to the PPST test session, students completed two speed of comprehension exercises. Tutors reviewed testtaking strategies and administered the reading subtest of a practice PPST using the standardized procedures used in the actual administration. The practice tests were scored and results discussed. Tutors congratulated the students for their work in the tutoring sessions and their performance on the practice test. Twenty-seven tutored students and their matched pairs retook the reading subtest of the PPST.

Results

Of the tutored students, 63% passed the reading subtest at the next PPST testing session, and 37% failed the subtest. Of the matched students only 25% passed the reading subtest, and 74% failed. The date was analyzed using McNemar's test for differences between correlated proportions (Guilford & Fruchter, 1978). McNemar's test considers whether the change in frequencies is significant and takes the correlation between the frequencies into account. The results were significant, $z = 2.5$, $p<.01$ (one-tailed).

Discussion

The purpose of this study was to increase students' passing rate on the reading subtest of the PPST by increasing their ability to answer reading items correctly, increasing their comprehension speed, and increasing their confidence in their test taking abilities. Certainly the pass rate of the students who participated in this study was impressive (63%). These were students who had already

demonstrated failure (several students had retaken the PPSt more than once) on the PPST and were expected to pass at a 40% rate at best. In fact, the Texas Education Agency communications of June, 1987 and October, 1987 observed that 59.9% to 60.7% of all first-time takers passed the reading subtest in the March, 1987 and the June, 1987 testing. The pass rate for the project participants therefore was somewhat higher to that of first-time takers. On the other hand, the pass rate of the control students in the matched pairs was only 26% with 74% failing again.

The high success rate might be attributed to several factors. The type and quality of the remediation provided for the tutored students was different from the remediation efforts typically available for college level students. Remediation programs at the college level generally offer students individual instruction through self-directed materials or large group instruction with a standard set of study techniques (Devirian, 1975). This study used a different model of remediation -- effective teaching practices with reciprocal teaching. The remediation emphasized instruction on identified weaknesses, such as making inferences, within the context of active discussion among students and teacher. The small group instruction model also allowed for affective support of high teacher expectations and confidence building based on students' graphed progress.

This study has several weaknesses. The motivation of the individual students and faculty was an important factor. The students in the project were self-selected. Having failed the PPST, these students were blocked from achieving their goal of becoming teachers and viewed this remediation opportunity as a "last chance". Students in the comparison group may not have been as motivated as the tutored group. Similarly, the faculty providing the instruction were volunteers and reported a commitment to the success of the project that increased as the small group

work progressed. In typical remedial programs at the college level, faculty may not be so involved. We would argue, however, that all teaching should be conducted by committed faculty.

Another limitation of this study is the matched pair design which is not a satisfactory substitute for randomization to achieve equality between groups. Since this project began because of a concern for potential teacher education students who were being denied admission to the program, we worked with available students whose schedules matched the tutoring schedules. Nevertheless, we believe that the results suggest that a combination of reciprocal teaching that focuses on student weaknesses, instruction in testtaking, and affective support may be an effective remediation procedure for these students.

References

American College Testing Program. (1986). Assessment of student profile data. Iowa City. Unpublished raw data.

Anderson, L., Evertson, C., & Brophy, J. (1979). An experimental study of effective teaching in first grade reading groups. Elementary School Journal, 79, 193-222.

Antonelli, G. H. (1987, November). Letter to the editor. Pine Bluff Commercial, p. 1.

Bray, C. H. (1984). The Black public school teacher: Alabama's endangered species. In Prospective Black teachers and the closing door: Strategies for entry, 10-13. Washington, DC: ERIC Clearinghouse on Teacher Education. (ERIC Document Reproduction Service No. ED 255 476).

Boning, R. A. (1982). Drawing Conclusions. Baldwin, NY: Barnell Loft, Ltd.

Brown, A. L. (1978). Knowing when, where, and how to remember: A problem of metacognition. In R. Glaser (Ed.), Advances in instructional psychology (Vol. 1, pp. 77-165). Hillsdale, NJ: Erlbaum.

Duffy, G., Roehler, L., Meloth, M., Vavrus, L., Book, C., Putnam, J., & Wesselman, R. (1986). The relationship between explicit verbal explanations during reading skill instruction and student awareness and achievement: A study of reading teacher effects. Reading Research Quarterly, 21, 237-253.

Educational Testing Service. (1985). Pre-Professional skills tests of reading, writing, and mathematics: 1985-86 bulletin of information. Princeton, NJ.

Eissenberg, T. E., & Rudner, L. M. (1988). State Testing of teachers: A summary. Journal of Teacher Education, 39 (4), 21-22.

Fry, E. B. (1977). Fry's readability graph: Clarifications, validity and extension to level 17. Journal of Reading, 21, 242-252.

Garcis, P. A. (1985). A study on teacher competency testing and test validity with implications for minorities and the results and implications of the use of the PPST as a screening device for entrance into teacher education programs in Texas. Final Report for the National Institute of Education. Edinburg, TX: Pan American University.

Guilford, J. P., & Fruchter, B. (1978). Fundamental Statistics in Psychology and Education 6th ed. New York: McGraw-Hill Book Co.

Haberman, M. (1988). Proposals for recruiting minority teachers: Promising practices and attractive detours. Journal of Teacher Education, 39 (4), 38-44.

Karlsen, B., Madden, R., & Gardner, E. (1977). Stanford Diagnostic Reading Test. New York: Harcourt Brace Jovanovich, Inc.

McCall, W. A., & Schroeder, L. C. (1979). McCall-Crabbs Standards Tests in Reading, (Book F). New York: Teachers College Press.

Palincsar, A. S., & Brown, A. L. (1984). Reciprocal teaching of comprehension-fostering and-monitoring activities. Cognition and Instruction, 1, 117-175.

Paris, S., Cross, D., & Lipson, M. (1984). Informed strategies for learning: A program to improve children's reading awareness and comprehension. Journal of Educational Psychology, 76, 1239-1252.

Paris, S. & Jacobs, J. (1984). The benefits of informed instruction for children's reading awareness and comprehension skills. Child Development, 55, 2083-2093.

Rosenshine, B. (1979). Content, time, and direct instruction. In Peterson, P., & Walberg, H. (Eds.), Research on teaching: Concepts, findings, and implications (pp. 28-56). Berkeley, CA.: McCutchan.

Spellman, S. O. (1988). Recruitment of minority teachers: Issues, problems, facts, possible solutions. Journal of Teacher Education, 39 (4), 58-63.

Texas Education Agency. (1987, June). Report on results of the Pre-professional Skills Test through the June 1987 administration. Austin, TX.

Texas Education Agency. (1987, October). Report on results of the Pre-professional Skills Test through October 1987 administration. Austin, TX.

Wassman, R., & Paye, A. (1985). A reader's handbook. Glenview, IL: Scott, Foresman and Co.

Wiener, H. S. & Bazerman, C. (1982). Reading skills handbook. Boston, MA: Houghton Mifflin Co.

Wittenberg, (1987). Identifying Inferences. Baldwin, NY: Barnell Loft.